

Amendments to the Claims:

Please cancel claim 20, and amend claims 1, 2, 5, 6, 9, 12, 14 and 16 as shown in the following list of claims. This listing of claims will replace all prior 5 versions, and listings, of claims in the application.

1. 1. (currently amended) A communication station adapted for contactless
2 communication with transponders and with further communication stations,
3 comprising:
 - 4 first protocol-executing means configured to function according to station-
5 transponder protocol, the first protocol-executing means being configured to effect
6 communication between the communication station and at least one transponder
7 while observing the station-transponder protocol, the at least one transponder
8 being a passive transponder that does not have any power supply of its own;
 - 9 second protocol-executing means configured to function according to a
10 station-station protocol that differs from the station-transponder protocol in
11 respect of at least one protocol parameter, the second protocol-executing means
12 being configured to effect communication between the communication station and
13 at least one further communication station while observing the station-station
14 protocol;
 - 15 first signal-processing means electrically connected to the first protocol-
16 executing means, the first signal-processing means being configured to code
17 signals using ~~only~~ Miller code and decode signals using ~~only~~ Manchester code for
18 contactless station-transponder communication, the first signal-processing means
19 being further configured to modulate and demodulate the signals for the
20 contactless station-transponder communication;
 - 21 second signal-processing means electrically connected to the second
22 protocol-executing means, the second signal-processing means being configured
23 to code and decode signals for contactless station-station communication, the
24 second signal-processing means being further configured to modulate and
25 demodulate the signals for the contactless station-station communication, the
26 second signal-processing means being configured to code and decode the signals

27 using one of a non-return-to-zero code and an FM zero code for the contactless
28 station-station communication; and
29 a transmission coil electrically connected to the first signal-processing
means to transmit the signals for the contactless station-transponder
30 communication from the first signal-processing mean and to receive the signals
31 for the contactless station-transponder communication to be processed by the first
32 signal-processing mean, the transmission coil being also electrically connected to
33 the second signal-processing means to transmit the signals for the contactless
34 station-station communication from the second signal-processing mean and to
35 receive the signals for the contactless station-station communication to be
36 processed by the second signal-processing mean, the transmission coil being
37 configured to provide an energy-supply signal to the at least one transponder to
38 supply the at least one transponder with energy.

40 transmission means electrically connected to the first and second signal-
41 processing means to transmit and receive the signals for the contactless station-
42 transponder communication and the signals for the contactless station-station
43 communication to and from the first and second signal processing means, the
44 transmission means being configured to receive and transmit electromagnetic
45 signals for contactless communication with the transponders and the further
46 communication systems.

1 2. (currently amended) A communication station as claimed in claim 1,
2 wherein the first protocol-executing means have energy-supply signal generating
3 means that are configured to generate ~~an~~ the energy-supply signal each time the
4 handling of the station-transponder protocol starts, and wherein the second
5 protocol-executing means have synchronizing-signal generating means that are
6 configured to generate a synchronizing signal each time the handling of the
7 station/station protocol starts.

1 3. (previously presented) A communication station as claimed in claim 1,
2 wherein the station-station protocol is operative to cause a minimal energy
3 consumption at the communication station when communicating with the at least
4 one further communication station.

1 4. (previously presented) A communication station as claimed in claim 1,
2 wherein the first protocol-executing means are configured to function according to
3 the station-transponder protocol that is configured to communicate with a plurality
4 of transponders, and wherein the second protocol-executing means are configured
5 to establish a communication connection to a plurality of communication stations.

1 5. (currently amended) An integrated circuit for a communication station for
2 contactless communication with transponders and with further communication
3 stations, comprising:

4 first protocol-executing means configured to function according to a
5 station-transponder protocol, the first protocol-executing means being configured
6 to effect communication between the communication station and at least one
7 transponder while observing the station-transponder protocol, the at least one
8 transponder being a passive transponder that does not have any power supply of
9 its own;

10 second protocol-executing means configured to function according to a
11 station-station protocol that differs from the station-transponder protocol in
12 respect of at least one protocol parameter, the second protocol-executing means
13 being configured to effect communication between the communication station and
14 at least one further communication station while observing the station-station
15 protocol;

16 first signal-processing means electrically connected to the first protocol-
17 executing means, the first signal-processing means being configured to code
18 signals using only Miller code and decode signals using only Manchester code for
19 contactless station-transponder communication, the first signal-processing means
20 being further configured to modulate and demodulate the signals for the
21 contactless station-transponder communication;

22 second signal-processing means electrically connected to the second
23 protocol-executing means, the second signal-processing means being configured
24 to code and decode signals for contactless station-station communication, the
25 second signal-processing means being further configured to modulate and
26 demodulate the signals for the contactless station-station communication, the

27 second signal-processing means being configured to code and decode the signals
28 using one of a non-return-to-zero code and an FM zero code for the contactless
29 station-station communication; and

30 a terminal electrically connected to the first signal-processing means to
31 transmit the signals for the contactless station-transponder communication from
32 the first signal-processing mean to a transmission coil for transmission and to
33 receive the signals for the contactless station-transponder communication from the
34 transmission coil to be processed by the first signal-processing mean, the terminal
35 being also electrically connected to the second signal-processing means to
36 transmit the signals for the contactless station-station communication from the
37 second signal-processing mean to the transmission coil for transmission and to
38 receive the signals for the contactless station-station communication from the
39 transmission coil to be processed by the second signal-processing mean, the
40 transmission coil being configured to provide an energy-supply signal to the at
41 least one transponder to supply the at least one transponder with energy.

42 a terminal electrically connected to the first and second signal processing
43 means to transmit and receive the signals for the contactless station-transponder
44 communication and the signals for the contactless station-station communication
45 to and from the first and second signal processing means, the terminal being
46 configured to be connected to transmission means for contactless communication
47 with the transponders and the further communication systems.

1 6. (currently amended) An integrated circuit as claimed in claim 5, wherein
2 the first protocol-executing means have energy-supply signal generating means
3 configured to generate ~~an~~ the energy-supply signal each time the station-
4 transponder protocol starts, and wherein the second protocol-executing means
5 have synchronizing-signal generating means that are configured to generate a
6 synchronizing signal each time the handling of the station-station protocol starts.

1 7. (previously presented) An integrated circuit as claimed in claim 5, wherein
2 the station-station protocol is configured to minimize energy consumption at the
3 communication station when communicating with the at least one further
4 communication station.

1 8. (previously presented) An integrated circuit as claimed in claim 5, wherein
2 the first protocol-executing means are operative to function according to the
3 station-transponder protocol, which is adaptive to communicate with a plurality of
4 transponders, and wherein the second protocol-executing means are configured to
5 establish a communication connection to a plurality of communication stations.

1 9. (currently amended) A communication system adapted for contactless
2 communication, comprising:

3 a plurality of transponders, the transponders being passive transponders
4 that do not have any power supply of their own;

5 a plurality of communication stations, each comprising:

6 a microprocessor configured to execute a station-transponder
7 protocol for contactless station-transponder communication with at least one of
8 the transponders and a station-station protocol for contactless station-station
9 communication with at least one of the communication stations, wherein the
10 station-station protocol differs from the station-transponder protocol by at least
11 one protocol parameter, the microprocessor being further configured to code
12 signals using ~~only~~ Miller code and decode signals using ~~only~~ Manchester code for
13 the contactless station-transponder communication and to code and decode signals
14 for the contactless station-station communication, the microprocessor being
15 further configured to modulate and demodulate the signals for the contactless
16 transponder communication and to modulate and demodulate the signals for the
17 contactless station communication, the microprocessor being configured to code
18 and decode the signals using one of a non-return-to-zero code and an FM zero
19 code for the contactless station-station communication; and

20 transmission means a transmission coil electrically connected to the
21 microprocessor to transmit and receive the signals for the contactless station-
22 transponder communication and the signals for the contactless station-station
23 communication to and from the microprocessor, the transmission coil being
24 configured to provide an energy-supply signal to the transponders to supply the
25 transponders with energy the transmission means being configured to receive and
26 transmit electromagnetic signals for contactless communication with the
27 transponders and the communication systems.

1 10. (canceled).

1 11. (previously presented) A communication system as claimed in claim 9,
2 wherein each of the transponder is an RF tag.

1 12. (currently amended) A communication system as claimed in claim 9,
2 wherein the microprocessor is configured to generate ~~an~~ the energy-supply signal.

1 13. (previously presented) A communication system as claimed in claim 9,
2 wherein the microprocessor is configured to generate a synchronizing signal.

1 14. (currently amended) A communication station adapted to communicate
2 with a plurality of transponders, comprising:
3 a microprocessor configured to execute a station-transponder protocol for
4 contactless station-transponder communication with at least one of the
5 transponders and a station-station protocol for contactless station-station
6 communication with other communication stations, the transponders being passive
7 transponders that do not have any power supply of their own, wherein the station-
8 station protocol differs from the station-transponder protocol by at least one
9 protocol parameter, the microprocessor being further configured to code signals
10 using only Miller code and decode signals using only Manchester code for the
11 contactless station-transponder communication and to code and decode signals for
12 the contactless station-station communication, the microprocessor being further
13 configured to modulate and demodulate the signals for the contactless station-
14 transponder communication and to modulate and demodulate the signals for the
15 contactless station-station station communication, the microprocessor being
16 configured to code and decode the signals using one of a non-return-to-zero code
17 and an FM zero code for the contactless station-station communication; and
18 transmission means a transmission coil electrically connected to the
19 microprocessor to transmit and receive the signals for the contactless station-
20 transponder communication and the signals for the contactless station-station
21 communication to and from the microprocessor, the transmission coil being
22 configured to provide an energy-supply signal to the transponders to supply the

23 transponders with energy the transmission means being configured to receive and
24 transmit electromagnetic signals for contactless communication with the
25 transponders and the other communication systems.

1 15. (previously presented) A communication station as claimed in claim 14,
2 wherein each of the transponders is an RF tag.

1 16. (currently amended) A communication station as claimed in claim 14,
2 wherein the microprocessor is configured to generate ~~an~~ energy-supply signal.

1 17. (previously presented) A communication system as claimed in claim 14,
2 wherein the microprocessor is configured to generate a synchronizing signal.

1 18. (previously presented) A communication station as claimed in claim 1,
2 wherein the second signal-processing means is configured to code and decode the
3 signals using the FM zero code for the contactless station-station communication.

1 19. (previously presented) A communication station as claimed in claim 1,
2 wherein the second signal-processing means is configured to code and decode the
3 signals using the non-return-to-zero code for the contactless station-station
4 communication.

1 20. (cancelled).